

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Original) A thin-film EL device having at least a structure comprising an electrically insulating substrate, a patterned electrode layer stacked on said substrate, and a dielectric layer, a light-emitting layer and a transparent electrode stacked on said electrode layer, wherein:

said dielectric layer is a multilayer dielectric layer formed in a multilayer form by repeating a solution coating-and-firing step plural times, and

said multilayer dielectric layer has a thickness of at least four times as large as a thickness of said electrode layer and 4 μm to 16 μm inclusive.

2. (Original) The thin-film EL device according to claim 1, wherein said multilayer dielectric layer is formed by repeating said solution coating-and-firing step at least three times.

3. (Original) The thin-film EL device according to claim 1, wherein said multilayer dielectric layer has a thickness per sub-layer of at least 1/2 of said electrode layer.

4. (Currently Amended) A process of fabricating a thin-film EL device having at least a structure comprising an electrically insulating substrate, a patterned electrode layer stacked on said substrate, and a dielectric layer, a light-emitting layer and a transparent electrode stacked on said electrode layer, wherein:

said dielectric layer is provided on said electrode layer in a multilayer form by repeating coating-and-firing of a dielectric precursor solution ~~plural~~ at least three times.

5. (Canceled)

6. (Previously Presented) The thin-film EL device according to Claim 1, wherein said electrically insulating substrate maintains a given heat-resistant strength without contaminating said patterned electrode layer and said dielectric layer.

7. (Previously Presented) The thin-film EL device according to Claim 1, wherein said electrically insulating substrate is selected from the group consisting of alumina (Al_2O_3), quartz glass (SiO_2), magnesia (MgO), forsterite ($2\text{MgO} \cdot \text{SiO}_2$), steatite ($\text{MgO} \cdot \text{SiO}_2$), mullite ($3\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$), beryllia (BeO), zirconia (ZrO_2), aluminum nitride (AlN), silicon nitride (SiN), silicon carbide (SiC), crystallized glass, high heat-resistance glass, green sheet glass substrates and enameled metal substrates.

8. (Previously Presented) The thin-film EL device according to Claim 1, wherein said patterned electrode layer has a pattern comprising a plurality of stripes.

9. (Currently Amended) The thin-film EL device according to Claim 1, wherein a line width of said stripes of said patterned electrode is 200 to 500 μm and a space between two said stripes is about 20 μm .

10. (Previously Presented) The thin-film EL device according to Claim 1, wherein said patterned electrode layer comprises an oxide conductive material, a base metal, a noble metal, a noble metal alloy and a combination of a noble metal with a nonmetal element.

11. (Previously Presented) The thin-film EL device according to Claim 1, wherein a specific dielectric constant of said dielectric layer is at least 10 times as large as the thickness of the dielectric layer as expressed in μm .

12. (Previously Presented) The thin-film EL device according to Claim 1, wherein said dielectric layer comprises a material selected from the group consisting of dielectric materials having perovskite structures, composite perovskite-relaxor ferroelectric materials, bismuth layer-structured compounds and tungsten bronze ferroelectric materials.

13. (Previously Presented) The thin-film EL device according to Claim 1, wherein said coating-and-firing processe comprises a sol-gel process, an MOD process or a combination thereof.

14. (Canceled)

15. (Previously Presented) The thin-film EL device according to Claim 1, wherein said light-emitting layer comprises ZnS doped with Mn .

16. (Previously Presented) The thin-film EL device according to Claim 1, wherein said light-emitting layer comprises SrS:Ce.

17. (Previously Presented) The thin-film EL device according to Claim 1, wherein said light-emitting layer has a thickness of 100 to 2,000 nm.

18. (Previously Presented) The thin-film EL device according to Claim 1, further comprising an insulator layer disposed on said light-emitting layer.

19. (Previously Presented) The thin-film EL device according to Claim 18, wherein said insulator layer has a thickness of 50 to 1,000 nm.

20. (Previously Presented) The thin-film EL device according to Claim 1, wherein said transparent electrode layer comprises an oxide conductive material.

Application No.: 09/866,732
Amendment Dated: November 20, 2003
Reply to Office Action of: October 3, 2003

BASIS FOR THE AMENDMENT

Claims 5 and 14 have been canceled.

The limitations of Claim 5 have been included in Claim 4.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-4, 6-13 and 15-20 will now be active in this application.